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ABSTRACT

A path route modification method and a switching system using the method enable to prevent duplicated label setting in the route modification performed in a network.

For switching system, a packet switching system disclosed includes a table for mapping either an input label value or a set of input label value and input port to an output port and an output label, wherein a state variable is set for either the input label value or the set of input label value and input port mapped in the table to represent either of the three states of 'not reserved', 'reserved', and 'double reserved'; and a packet switch for packet-switching packet data according to the information mapped in the table.